

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A method for the fabrication of a field-effect transistor comprising the steps of:

forming a semiconductor layer serving as an active layer on a substrate;

setting the substrate temperature at no higher than 100°C and forming a gate insulating film on said semiconductor layer, such that interface level density between the semiconductor layer and the gate insulating film is no greater than $10^{11}\text{cm}^{-2}\text{eV}^{-1}$; and

heat treating said gate insulating film in an atmosphere containing water.

2. (previously amended) The method for the fabrication of a field-effect transistor according to claim 1, wherein heat treatment of said gate insulating film is conducted at a temperature of no less than 100°C.

3. (previously amended) The method for the fabrication of a field-effect transistor according to claim 1, wherein the formation of said gate insulating film is conducted while heating of said substrate is being prohibited.

4. (previously amended) The method for the fabrication of a field-effect transistor according to claim 1, wherein the formation of said gate insulating film is conducted while said substrate is being cooled to a temperature of no higher than room temperature.

5. (previously amended) The method for the fabrication of a field-effect transistor according to claim 1, wherein said gate insulating film is formed by a plasma CVD method.

6. (previously amended) The method for the fabrication of a field-effect transistor according to claim 1, wherein said gate insulating film is formed by a microwave plasma CVD method.

7. (currently amended) A method for the fabrication of a field-effect transistor comprising the steps of:

forming a semiconductor layer serving as an active layer on a substrate;

setting the substrate temperature at no higher than 100°C and forming a first-stage gate insulating film on said semiconductor layer, such that interface level density between the semiconductor layer and the gate insulating film is no greater than $10^{11}\text{cm}^{-2}\text{eV}^{-1}$; and

setting said substrate temperature at no less than 100°C and forming a second-stage gate insulating film.

8. (original) The method for the fabrication of a field-effect transistor according to claim 7, further comprising a step of heat treating said first-stage gate insulating film in an atmosphere containing water after the formation of said first-stage gate insulating film.

9. (previously amended) The method for the fabrication of a field-effect transistor according to claim 8, wherein heat treating of said gate insulating film is conducted at a temperature of no less than 100°C.

10. (previously amended) The method for the fabrication of a field-effect transistor according to claim 7, wherein the formation of said first-stage gate insulating film is conducted while heating of said substrate is being prohibited.

11. (previously amended) The method for the fabrication of a field-effect transistor according to claim 7, wherein the formation of said first-stage gate insulating film is conducted while said substrate is being cooled to a temperature of no higher than room temperature.

12. (previously amended) The method for the fabrication of a field-effect transistor according to claim 7, wherein the formation of said first-stage gate insulating film is conducted by a plasma CVD method.

13. (previously amended) The method for the fabrication of a field-effect transistor according to claim 7, wherein the formation of said first-stage gate insulating film is conducted by a microwave plasma CVD method.

14. (previously amended) The method for the fabrication of a field-effect transistor according to claim 7, wherein the formation of said second-stage insulating film is conducted by a plasma CVD method using TEOS gas.

15. (currently amended) An electronic apparatus manufactured by the fabrication method of a field-effect transistor, the fabrication method comprising the steps of:

forming a semiconductor layer serving as an active layer on a substrate;

setting the substrate temperature at no higher than 100°C and forming a gate insulating film on said semiconductor layer, such that interface level density between the semiconductor layer and the gate insulating film is no greater than $10^{11}\text{cm}^{-2}\text{eV}^{-1}$; and

heat treating said gate insulating film in an atmosphere containing water.

16. (currently amended) An electronic apparatus manufactured by the fabrication method of a field-effect transistor, the fabrication method comprising the steps of:

forming a semiconductor layer serving as an active layer on a substrate;

setting the substrate temperature at no higher than 100°C and forming a first-stage gate insulating film on said semiconductor layer, such that interface level density between the semiconductor layer and the gate insulating film is no greater than $10^{11}\text{cm}^{-2}\text{eV}^{-1}$; and

setting said substrate temperature at no less than 100°C and forming a second-stage gate insulating film.